

## Privacy Protection in the Big Data Era: A Review of Personal Data Protection Policies

Zainul Djumadin

Faculty of Social and Political Sciences, Nasional University

---

### ARTICLE INFO

**Primary key:**  
*Privacy Protection,  
Big data,  
Personal Data Protection Policy,  
Government.*

---

Email :  
zainul.djumadin@civitas.unas.ac.id

---

### ABSTRACT

In the face of the rapid development of Big Data, privacy protection has become a central issue that requires serious attention. This research aims to conduct a comprehensive review of existing personal data protection policies, with a focus on their relevance in the context of the Big Data era. We analyze the impact of large-scale data collection, processing and analysis on individual privacy, and evaluate the extent to which current data protection policies can address emerging challenges. This research uses a qualitative approach with descriptive methods. The research results show that personal data protection has become a major concern in Indonesia, especially due to the increase in data breaches and leaks. Although there have been efforts by the government and the DPR to draft a special draft law (RUU), the bill has not yet been passed into law. An important point in the bill is the application of the principle of extra-territorial jurisdiction, which emphasizes data protection obligations for all entities, both within and outside Indonesian jurisdiction. Although the bill is still awaiting approval, this step reflects the government's determination to create a solid legal foundation that is responsive to the complex challenges of personal data protection in the digital era.

Copyright © 2023.

**Jurnal Restorasi : Hukum dan Politik**

All rights reserved is Licensed under a [Creative Commons Attribution- NonCommercial 4.0 International License \(CC BY-NC 4.0\)](https://creativecommons.org/licenses/by-nc/4.0/)

---

### INTRODUCTION

In facing an era of rapid digital transformation, Big Data has become the main driver of innovation in various sectors, opening up new opportunities and increasing efficiency through large-scale data analysis (Hakim et al, 2021). However, along with these advances, serious concerns have arisen regarding the protection of individual privacy. The Big Data era is characterized by exponential growth in the volume, velocity, and diversity of data. Organizations, both government and private, are increasingly relying on data analysis to gain deep insights, increase efficiency, and understand user behavior (Sedayu & Andriyansyah, 2021).

However, the increasingly widespread collection and use of this data also raises concerns about individual privacy . Personal data protection is becoming an increasingly urgent matter (Suharyanti & Sutrisni, 2021). This phenomenon is accompanied by the rise of cybercrime which uses personal data as an easy target. However, a paradox arises when most people are still not fully aware that their personal data can easily be misused by irresponsible parties (Rosadi & Pratama, 2018). Along with the surge in technological growth, our personal information is increasingly exposed and spread across various digital platforms. Without adequate awareness, people can fall prey to the risk of identity theft, online fraud, and exploitation of personal data for

unethical purposes. The importance of public understanding of this threat is the main basis for building awareness of the need to protect personal data (Dhianty, 2022).

Being a digital platform user brings with it a number of fundamental challenges, which require us to adopt measures to protect our own data and also involve awareness of responsibility for other people's personal data (Carlo & Hirawan, 2022). In the midst of the euphoria of sharing and interacting in cyberspace, we are often lulled into forgetting that the personal data we share can be exploited by irresponsible parties. One of the main challenges is excessive sharing behavior and a lack of understanding of the associated risks (Rahman, 2021). Our society, which tends to be active on various digital platforms, has a tendency to share personal information without considering the impact. This action not only increases the risk of identity theft and fraud, but also opens up opportunities for unethical data exploitation (Endah et al, 2017).

Weak data protection in Indonesia has opened the door to widespread leaks of personal information. This is revealed through a series of increasingly frequent cybercrime cases, such as hacking and cracking social media, which leads to personal data breaches, extortion and online fraud (Rumlus & Hartadi, 2020). In the current context, personal data is like the "new oil." Sometimes, we without thinking give out information such as our full name and telephone number, while at other times, more sensitive data such as our home address and email address are also disclosed. Unfortunately, this combination of data can be misused by irresponsible parties, such as in banking fraud schemes (scams), proving that personal data protection is an urgent need to avoid serious consequences related to the exploitation of personal information (Jamba & Synarky, 2023).

Facing this challenge, it is important to understand that every act of sharing data has consequences, both for oneself and others. Steps to protect personal data involve awareness of the limits of information that can be shared online and the privacy policies embedded in digital platforms (Situmeang, 2021). Managing privacy settings and limiting strangers' access to personal information can be an effective first step. Apart from that, being a protector of personal data also means protecting and educating others around us about the importance of digital security. Warning friends and family about potential risks and providing information about best practices in using digital platforms can help build a culture of awareness and shared responsibility for personal data protection (Yuniarti, 2019).

The demand for stricter regulations regarding personal data protection has received serious attention from the government. Even though there are several regulations that have been implemented, such as Law No. 11 of 2008 concerning ITE, Government Regulation (PP) Number 82 of 2012 concerning the Implementation of Electronic Systems and Transactions, Government Regulation (PP) Number 71 of 2019 concerning the Implementation of Electronic Systems and Transactions, and Minister of Communication and Information Regulation Number 20 of 2016 concerning Protection of Personal Data in Electronic Systems which has been in effect since December 2016, but until now, most of these regulations are still general in nature (Mutiarra & Maulana, 2020). The government is realizing the need for improvements in the regulatory framework to deal with the rapid dynamics of the digital world, where personal data is becoming increasingly valuable. Efforts to detail and update personal data protection regulations reflect the government's seriousness in protecting individual rights in the rapidly developing digital era (Rosadi, 2017).

This research aims to conduct a comprehensive review of the personal data protection policies that have been implemented, with a particular focus on how these policies address the challenges faced in the Big Data era. Thus, this research will provide in-depth insights into the extent to which data protection policies can protect individual privacy in an increasingly

connected and complex environment. It is hoped that the results of this research will provide guidance for governments, companies and other institutions in developing or updating their personal data protection policies to better suit the challenges and opportunities emerging from the Big Data era. In addition, it is hoped that this research will contribute to global understanding of the necessary balance between technological innovation and individual privacy rights

## METHOD

This study employs a qualitative methodology, aligning with the concept of Bogdan and Biklen as elucidated by Moleong (2014), which characterizes qualitative research as descriptive. Within this framework, data collection takes the form of words or images, with a deliberate avoidance of numerical emphasis. The qualitative approach, in accordance with Sugiyono's description (2011), is rooted in the philosophy of postpositivism and is employed to scrutinize the natural conditions of objects. In contrast to experimental methods, qualitative research involves the researcher as the primary instrument, incorporates data triangulation techniques, and conducts an inductive and qualitative analysis. Given the descriptive nature of the research, the gathered data will be examined using qualitative methods, presenting research findings through descriptive language. This method allows for a comprehensive exploration of research results based on the actual occurrences in the field, emphasizing a nuanced understanding rather than mere generalizations.

## RESULTS AND DISCUSSION

The increasingly rapid development of technology has brought humans into an era of high complexity and connectivity. Every individual's data is now recorded, connected and integrated in systems around the world, creating an increasingly pressing need to protect consumer privacy and data. In the midst of the digital economy era, the use of Big Data to protect consumer privacy is a top priority. In the Indonesian context, the implementation of Big Data is more generally found in the business world. Companies in Indonesia use Big Data to analyze data from various sources, both internal and external, to guide business policies and strategies. Thus, the application of Big Data not only has an impact on operational efficiency, but is also key in developing policies that are responsive to consumer needs and market dynamics. In its journey, it is important to ensure that the use of Big Data is carried out with attention and respect for consumer privacy, so that this development can provide sustainable benefits in the context of Indonesia's digital economy which continues to develop (Fonna, 2019).

Big Data has become a crucial factor in increasing opportunities for company growth and development, especially because of its ability to automate data management and provide real-time access. Speed and accuracy in the decision-making process are significant advantages. However, along with the benefits it provides, the existence of Big Data also raises concerns among customers, especially regarding privacy. Companies that use Big Data have great potential to understand consumer behavior patterns and data in detail, especially through social media (Kurnianingrum, 2023).

In Indonesia, research has revealed that many companies and other parties use data obtained from social media for personal gain. This raises concerns about misuse of data and potential privacy violations. Although Big Data provides advantages in increasing business efficiency, the importance of considering consumer ethics and privacy is also a must. Therefore, companies need to ensure that the application of Big Data not only provides benefits for their business, but also involves practices that are transparent, ethical, and pay attention to consumer privacy rights in the ever-growing digital era (Muhammad Wali et al., 2023).

In facing the digital economic era, efforts to guarantee and protect consumers have inspired updates to international law relating to producer responsibility or product liability. These steps aim to encourage awareness of business actors in carrying out business and production activities with full responsibility towards their consumers. This change provides a kind of strong legal basis to ensure that products and services provided on the digital market meet the quality and safety standards expected by consumers. Apart from that, to increase the protection of consumer data in the digital economy era, it is necessary to provide outreach regarding ethics in information technology. By providing an understanding of the importance of privacy and data security, people can be empowered to have better insight and the courage to defend themselves if their privacy or personal data is misused by individuals, organizations, or even countries. This outreach not only provides an understanding of the risks involved, but also gives consumers the tools and knowledge to protect themselves in an increasingly complex digital environment. Thus, these steps create a more responsible, ethical and consumer-friendly business and digital environment (Pratama et al, 2022).

Big Data is a very valuable resource that can have a positive impact on business adaptation to rapid technological developments. However, with the significant growth in data usage, the protection and security of personal data is a top priority that cannot be ignored. The ability to utilize Big Data wisely requires awareness and commitment to carrying out ethical business practices and compliance with applicable regulations. Therefore, clear regulations and intensive outreach are needed so that business actors and the public can understand the procedures and laws governing data collection and use. Only with this holistic approach can the positive potential of Big Data be realized while maintaining the security and integrity of personal data in the ever-growing digital era (Aji, 2023).

Privacy protection through consumer data policies in Indonesia has experienced significant evolution over time. Initially, the right to privacy was regulated by Law No. 36 of 1999 concerning telecommunications, which provided protection for the confidentiality of personal information and communications, by prohibiting the practice of wiretapping (Fihim, 2022). However, more comprehensive regulations regarding the protection of personal data are then regulated in Law No. 18 of 2008 in conjunction with Law No. 19 of 2016 concerning ITE. Article 26 of Law No. 19 of 2016 is the basis which regulates that the use of information via electronic media involving a person's personal data must be based on the consent of the person concerned. This phrase means that every individual has full rights to his or her data, and the use of personal data must obtain permission from the data owner. Violation of this provision has applicable legal consequences, where parties who feel that their personal data is being used without permission can file a lawsuit. Article 26 paragraph (2) of the ITE Law states that if a violation occurs, the data owner has the right to request the deletion of irrelevant personal data from the electronic system operator. This creates a legal mechanism that empowers individuals to safeguard their privacy and control the use of their personal data (Trisnawati, 2023).

Although Law No. 19 of 2016 concerning ITE provides the legal basis for the protection of personal data, it should be noted that to date, the law does not specifically explain the definition and scope of "personal data." The explanation related to Article 26 only states that personal data protection is part of personal rights, which itself has three key meanings. First, personal rights are defined as the right to enjoy private life and be free from all kinds of interference. This includes individuals' rights to privacy and freedom from unwanted interference in their private lives. Second, personal rights are defined as the right to communicate with other people without spying. This affirms freedom of communication without fear that personal data can be exploited or snooped on by third parties. Third, personal rights are defined as the right to monitor access to



information about a person's life and data. This shows the importance of individual oversight of how their data is accessed and used. Although there is no explicit definition of "personal data," this interpretation of personal rights provides an overview of aspects that should be considered and recognized as individual rights in the context of data protection in the digital era. The limitations of this law may require revision or change to more accurately reflect the complexity and dynamics of personal data protection in today's digital world

Issues related to personal data protection have increasingly come into the public spotlight, especially in the last few years, which have been marked by increased awareness of individual privacy along with a series of personal data breaches that have occurred. Even though there are regulations governing the protection of personal data, it is evident that the regulations are still general in nature and spread across various legal sectors. This diversity of regulations makes handling data protection cases less effective because they seem fragmented. Existing regulations are not yet able to completely address the complexity of data protection challenges in the digital era. This limitation creates a loophole that can be exploited by irresponsible parties to violate individual privacy. Therefore, there is an urgent need to consolidate and update data protection regulations, so as to provide a legal framework that is more robust, comprehensive and responsive to the dynamics of the ever-evolving digital environment. This step is important so that personal data protection does not just become a slogan, but can be realized effectively in protecting people's privacy rights in this era of sophisticated information technology.

Issues related to personal data protection have been in the public spotlight in recent years, prompting loud voices to see a surge in incidents of personal data breaches and leaks. Although existing regulations cover aspects of personal data protection, it is revealed that the regulatory framework is still general and spread across various legal sectors. Real challenges arise due to the fragmentation and fragmentation of these arrangements, making it difficult to deal effectively with personal data protection cases.

Settings that are only general and fragmented create loopholes that can be exploited by irresponsible parties, increasing the risk of privacy violations. The lack of inter-sector coordination in the regulation of personal data makes it difficult to implement the rules comprehensively. Therefore, it is urgent to update and consolidate personal data protection regulations into one solid legal framework. In this way, privacy protection efforts can become more effective, provide optimal protection for individuals, and ensure that personal data is not misused in an era where information technology has penetrated various aspects of life.

The DPR has responded to the issue of personal data protection by drafting a special Bill (RUU). Even though this bill has been discussed for the past year, it has not yet been passed into law. At the plenary session on March 23 2021, the DPR passed 33 draft laws which were included in the 2021 priority Prolegnas, including the Bill on Personal Data Protection (PDP).

The PDP Bill has several aspects that reflect efforts to increase personal data protection in Indonesia. One of the important points in this bill is the application of the principle of extra-territorial jurisdiction, as stated in Article 2. According to this article, this law applies to every individual, public body and organization/institution that carries out legal acts, both within and outside the country. outside the jurisdiction of Indonesia, as long as it has legal consequences in the jurisdiction of Indonesia and/or for the owner of personal data of Indonesian citizens outside the jurisdiction of Indonesia.

The application of the principle of extra-territorial jurisdiction shows the government's seriousness in facing global challenges related to personal data protection. It is hoped that the PDP Bill will provide a more robust and comprehensive legal framework to handle personal data protection issues amidst the ever-growing complexity of the digital world. Although still awaiting

further approval, this step is a positive effort in creating a responsive and effective legal environment for personal data protection in Indonesia.

## CONCLUSION

The issue of personal data protection has become a highlight of Indonesian society, which has increasingly increased the need for strong and effective regulations. Although there are several regulations covering aspects of data protection, the regulations are still general and spread across various legal sectors, creating vulnerability to privacy violations. The government and DPR responded by drafting a special Bill (RUU) on Personal Data Protection, which has been discussed but has not yet been passed into law. The bill has several key features, including the principle of extra-territorial jurisdiction, which emphasizes the obligation to fulfill personal data protection standards for individuals, public bodies and organizations within and outside Indonesia's jurisdiction. This step reflects a positive response to global challenges in the field of data protection. Although this bill is still awaiting further approval, this initiative shows the government's determination to create a responsive and effective legal environment. In facing the complexity and dynamics of the digital world, the Personal Data Protection Bill is expected to provide a solid legal foundation, provide maximum protection for individual privacy, and provide clear measures against personal data violations in the era of ever-developing information technology.

## REFERENCES

1. Aji, M. P. (2023). Sistem Keamanan Siber dan Kedaulatan Data di Indonesia dalam Perspektif Ekonomi Politik (Studi Kasus Perlindungan Data Pribadi)[Cyber Security System and Data Sovereignty in Indonesia in Political Economic Perspective]. *Jurnal Politika Dinamika Masalah Politik Dalam Negeri Dan Hubungan Internasional*, 13(2), 222-238.
2. Carlo, H. H., & Hirawan, F. B. (2022). Urgensi Undang-Undang Perlindungan Data Pribadi dalam Pengembangan Kebijakan e-Government di Indonesia. *PERSPEKTIF*, 11(4), 1407-1413.
3. Dhianty, R. (2022). Kebijakan Privasi (Privacy Policy) dan Peraturan Perundang-Undangan Sektor Platform Digital vis a vis Kebocoran Data Pribadi. *Scripta: Jurnal Kebijakan Publik dan Hukum*, 2(1), 186-199.
4. Endah, T., Dimas, A., & Akmal, N. (2017). Kajian dampak penggunaan media sosial bagi anak dan remaja.
5. Fihim, M. (2022). *Rekonstruksi Regulasi Kewenangan Penyadapan Dalam Rangka Perlindungan Hak Asasi Manusia Berbasis Nilai Keadilan* (Doctoral dissertation, UNIVERSITAS ISLAM SULTAN AGUNG).
6. Fonna, N. (2019). *Pengembangan revolusi industri 4.0 dalam berbagai bidang*. Guepedia.
7. Hakim, D. N., Ramadan, F., & Cahyono, Y. I. (2021). Studi Pemanfaatan Big Data dalam Perumusan Kebijakan Publik pada Sektor Kesehatan. *SPECTA Journal of Technology*, 5(3), 308-322.
8. Jamba, P., & Svinarky, I. (2023). Pertanggungjawaban Pidana Dalam Penyebaran Data Pribadi: Tinjauan Hukum Pidana Saat Ini. In *Prosiding Seminar Nasional Ilmu Sosial dan Teknologi (SNISTEK)* (Vol. 5, pp. 498-506).
9. Kurnianingrum, T. P. (2023). Urgensi Pelindungan Data Pribadi Konsumen Di Era Ekonomi Digital. *Kajian*, 25(3), 197-216.
10. Moleong, L. J. (2014). *Metode penelitian kualitatif edisi revisi*. Bandung: PT Remaja Rosdakarya.

11. Muhammad Wali, S. T., Efitra, S., Kom, M., Sudipa, I. G. I., Kom, S., Heryani, A., ... & Sepriano, M. (2023). *Penerapan & Implementasi Big Data di Berbagai Sektor (Pembangunan Berkelanjutan Era Industri 4.0 dan Society 5.0)*. PT. Sonpedia Publishing Indonesia.
12. Mutiara, U., & Maulana, R. (2020). Perlindungan Data Pribadi Sebagai Bagian Dari Hak Asasi Manusia Atas Perlindungan Diri Pribadi. *Indonesian Journal of Law and Policy Studies*, 1(1), 42-54.
13. Pratama, B. A., Rani, M., & Nuraini, L. (2022). Perlindungan Hukum Terhadap Data Pribadi Konsumen E-Commerce (Kajian Terhadap Kebijakan Privasi Shopee, Tokopedia, dan Lazada). *Student Online Journal (SOJ) UMRAH-Ilmu Sosial Dan Ilmu Politik*, 3(1), 766-774.
14. Rahman, F. (2021). Kerangka Hukum Perlindungan Data Pribadi Dalam Penerapan Sistem Pemerintahan Berbasis Elektronik Di Indonesia. *Jurnal Legislasi Indonesia*, 18(1), 81-102.
15. Rosadi, S. D. (2017). Prinsip-Prinsip Perlindungan Data Pribadi Nasabah Kartu Kredit Menurut Ketentuan Nasional Dan Implementasinya. *Sosiohumaniora*, 19(3), 206-212.
16. Rosadi, S. D., & Pratama, G. G. (2018). Urgensi Perlindungan data Privasi dalam Era Ekonomi Digital Di Indonesia. *Veritas et Justitia*, 4(1), 88-110.
17. Rumlus, M. H., & Hartadi, H. (2020). Kebijakan penanggulangan pencurian data pribadi dalam media elektronik. *Jurnal Ham*, 11(2), 285-299.
18. Sedayu, A. S., & Andriyansah, A. (2021). Pemanfaatan Big Data pada Instansi Pelayanan Publik. *JlIP-Jurnal Ilmiah Ilmu Pendidikan*, 4(7), 543-548.
19. Situmeang, S. M. T. (2021). Penyalahgunaan Data Pribadi Sebagai Bentuk Kejahatan Sempurna Dalam Perspektif Hukum Siber. *Sasi*, 27(1), 38-52.
20. Sugiyono, P. (2011). Metodologi penelitian kuantitatif kualitatif dan R&D. *Alfabeta, Bandung*, 62-70.
21. Suharyanti, N. P. N., & Sutrisni, N. K. (2021). Urgensi Perlindungan Data Pribadi Dalam Menjamin Hak Privasi Masyarakat. In *Prosiding Seminar Nasional Fakultas Hukum Universitas Mahasarakwati Denpasar 2020* (Vol. 1, No. 1, pp. 119-134).
22. Trisnawati, D. (2023). Tinjauan Yuridis Terhadap Tindak Pidana Penipuan Secara Online Berdasarkan Undang-Undang Nomor 11 Tahun 2008 Jo Undang-Undang Nomor 19 Tahun 2016 Tentang Informasi Dan Transaksi Elektronik. *Jisos: Jurnal Ilmu Sosial*, 2(9), 1991-2006.
23. Yuniarti, S. (2019). Perlindungan hukum data pribadi di Indonesia. *Business Economic, Communication, and Social Sciences Journal (BECOSS)*, 1(1), 147-154.